

completely during the inspiratory phase or both circumstances, as shown in Figure 1. All the cases we report occurred with the administration of a low-flow anesthetic. In each case, the absorbent was examined for channeling. In eight of these cases, the absorbent remained white throughout, as shown in Figure 2. In two cases, there was scant purple speckling of the absorbent. No patient was harmed from CO₂ rebreathing.

Our experience suggests there is an indicator problem in Amsorb Plus that leads to unrecognized absorbent exhaustion. A heightened level of vigilance for inspired CO₂ is required when using Amsorb Plus.

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Intraoperative Severe Anaphylaxis Due to Gelofusine During a Neurosurgical Procedure

To the Editor:

Anaphylaxis due to Gelofusine and plasma expander during resuscitation or anesthesia is well described (1–3) with an estimated incidence of 0.066%–0.146% (4,5). However, severe anaphylaxis with Gelofusine is rare (0.007%) (5). We

report a case of severe intraoperative anaphylaxis with cardiovascular collapse (6) due to Gelofusine.

A 48-yr-old (160-cm tall, 65 kg) ASA-I woman with hypertrophied ligamentum flavum was scheduled for T_{3–7} and T_{12–L3} laminectomy and discectomy. The only positive history was allergy to oral ibuprofen. We induced anesthesia with propofol, O₂, and N₂O, and we maintained anesthesia with propofol. Three hours after induction, we started infusing Gelofusine (B. Braun, Malaysia). Six minutes after beginning the infusion (i.e., after 40–50 mL), the patient's airway pressure increased from 20 to 45 cm H₂O, and her oxygen saturation decreased from 100% to 96%, despite FIO₂ of 100%. The endotracheal tube and circuit were free of obstruction. Chest auscultation revealed bronchospasm. Simultaneously, her arterial blood pressure decreased from 120/80 to 50/20, and her heart rate increased from 80 to 100 bpm, with ST-segment depression and T-wave inversion. Both arms developed erythema and goose flesh skin. The triad of bronchospasm, erythema, and cardiovascular collapse strongly suggested anaphylaxis. We discontinued Gelofusine and administered IV epinephrine (0.4 mg total), hydrocortisone (100 mg), diphenhydramine (25 mg) and ranitidine (50 mg). This produced a rapid and sustained improvement. Surgery was completed successfully, and the trachea was extubated in the operating room.

Four weeks after surgery, we performed skin prick testing to Gelofusine and Hemacel, with a normal saline control. At 7 min, Gelofusine showed a reaction of 30 mm/40 mm (skin wheal/flare diameter), confirming the diagnosis. Hemacel showed a reaction of 25 mm/30 mm (skin wheal/flare diameter) at 10 min, confirming cross-reactivity as suggested by Russell and Fenwick (7,8). The patient was given a Medical Alert stating "allergic to Gelofusine and Hemacel."

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Succinylcholine as an Epidural Test Dose

To the Editor:

In a recent case report of inadvertent succinylcholine injection into the epidural space, Sofianou et al. (1) observed that "no data have been reported regarding epidural administration of succinylcholine through an epidural catheter in humans." This is not the case. Forty-three years ago, Hylton et al. (2) intentionally injected epidural succinylcholine in three patients as part of a study on the causes of epidural failure and methods of identifying epidural venous catheterization. These intrepid investigators concluded that "when venous catheterization is suspected, injection of a small (30–40 mg) dose of succinylcholine through the epidural catheter is recommended.